UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,486	12/27/2001	Kazuyuki Yokoyama	P6690a	8427

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EXAMINER
BAKER, CHARLOTTE M

ART UNIT	PAPER NUMBER
2626	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No.	Applicant(s)
	10/033,486	YOKOYAMA ET AL.
	Examiner	Art Unit
	Charlotte M. Baker	2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _14-29_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _14-29_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _20 May 2002 and 27 June 2002_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _06/17/02,06/16/03_ .

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

IDS cont. 07/21/03, 08/04/04

DETAILED ACTION

Priority

1.   Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers

have been placed of record in the file.

Specification

2.   Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a **single paragraph** on a
separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed
150 words in length since the space provided for the abstract on the computer tape used by the
printer is limited. The form and legal phraseology often used in patent claims, such as "means"
and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist
readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the
title. It should avoid using phrases which can be implied, such as, "The disclosure concerns,"
"The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
> any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
> requirements of this title.

4.   Claims 26-29 are rejected under 35 U.S.C. 101 because the claimed invention is directed

to non-statutory subject matter. The program claimed is merely a set of instructions per se.

Since the program is merely a set of instructions not embodied on a computer readable medium

to realize the computer program functionality, the claimed subject matter is non-statutory. See

MPEP § 2106 IV.B.1.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6.   Claim 14-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Payne

(6,206,504).

Regarding claim 14: The structural elements of apparatus claim 20 perform all of the steps of

method claim 14. Thus, claim 14 is rejected for the same reasons discussed in the rejection of

claim 20.

Regarding claim 15: The structural elements of apparatus claim 21 perform all of the steps of

method claim 15. Thus, claim 15 is rejected for the same reasons discussed in the rejection of

claim 21.

Regarding claim 16: The structural elements of apparatus claim 22 perform all of the steps of

method claim 16. Thus, claim 16 is rejected for the same reasons discussed in the rejection of

claim 22.

Regarding claim 17: The structural elements of apparatus claim 23 perform all of the steps of

method claim 17. Thus, claim 17 is rejected for the same reasons discussed in the rejection of

claim 23.

Regarding claim 18: The structural elements of apparatus claim 24 perform all of the steps of

method claim 18. Thus, claim 18 is rejected for the same reasons discussed in the rejection of

claim 24.

Regarding claim 19: The structural elements of apparatus claim 25 perform all of the steps of

method claim 19. Thus, claim 19 is rejected for the same reasons discussed in the rejection of

claim 25.

Regarding claim 20: Payne discloses a reduced-color image data generating unit (Fig. 1, printer

30) configured to reduce full-color digital image to reduced-color digital image data (col. 3, ln.

44-45) by reducing the color of each pixel in the full-color digital image to one of eight colors

(col. 4, ln. 1-13), wherein the color of each pixel in the reduced-color digital image data is

defined by first, second and third primary colors (CMY or RGB, col. 4, ln. 23-24), each primary

color capable of exhibiting either a first intensity or a second intensity (col. 3, ln. 34-40 and ln.

44-47); and a print data generating unit (Fig. 1, printer 30) configured to generate two-color print

data by converting the color of each pixel in the reduced-color digital image data to a main color,

a secondary color, or a background color according to the following rules (col. 3, ln. 44-56 and

TABLE 1): (1) for each pixel whose three primary colors each exhibit its first intensity convert

that pixel to the main color (col. 3, ln. 44-56 and TABLE 1), (2) for each pixel whose three

primary colors each exhibit its second intensity convert that pixel to the background color (col. 3,

ln. 44-56 and TABLE 1), and (3) for each pixel that does not satisfy either of conditions (1) or

(2) convert that pixel to the secondary color (col. 3, ln. 44-56 and TABLE 1).

Regarding claim 21: Payne satisfies all the elements of claim 20. Payne further discloses

wherein the color of each pixel in the full-color digital image data is defined by the first, second

and third primary colors (CMY or RGB, col. 4, ln. 23-24), each primary color capable of

exhibiting one of a plurality of intensities (col. 3, ln. 34-40 and ln. 44-47), and the reduced-color

image data generating unit (Fig. 1, printer 30) is further configured to compare the intensity of

the first primary color of each pixel in the full-color digital image data with a first threshold (col.

3, ln. 34-56 and TABLE 1), compare the intensity of the second primary color of each pixel in

the full-color digital image data with a second threshold (col. 3, ln. 34-56 and TABLE 1), and

compare the intensity of the third primary color of each pixel in the full-color digital image data

with a third threshold (col. 3, ln. 34-56 and TABLE 1), and reduce the color of each pixel in the

full-color digital image data based on the results of the comparisons (col. 3, ln. 34-56 and

TABLE 1).

Regarding claim 22: Payne satisfies all the elements of claim 20. Payne further discloses

wherein the first, second and third primary colors are red, green, and blue (col. 3, ln. 34-39 and

col. 4, ln. 5-7 and ln. 23-24).

Regarding claim 23: Payne satisfies all the elements of claim 20. Payne further discloses

wherein the first, second and third primary colors are cyan, magenta, and yellow (col. 3, ln. 34-

40 col. 4, ln. 23-24).

Regarding claim 24: Payne discloses a reduced-color image data generating unit (Fig. 1, printer

30) configured to reduce full-color digital image data to reduced-color digital image data (col. 3,

ln. 44-45) by reducing the color of each pixel in the full-color digital image data to one of a

predetermined number of colors (col. 4, ln. 1-13); and a print data generating unit (Fig. 1, printer

30) configured to generate two-color print data by converting each color in the reduced-color

digital image data to a main color, a secondary color, or a background color, wherein the

converting is performed according to one of the following (col. 3, ln. 44-56 and TABLE 1): (1)

uniformly converting each color in the reduced-color digital image data based on predefined

conditions (col. 3, ln. 44-56 and TABLE 1), or (2) converting each color in the reduced-color

digital image data based on changeable conversion table linking each color to the main color,

secondary color, or background color (col. 3, ln. 44-56 and TABLE 1).

Regarding claim 25: Payne satisfies all the elements of claim 24. Payne discloses wherein the

reduced-color image data generating unit (Fig. 1, printer 30) is configured to reduce each color in

the full-color digital image data (col. 3, ln. 44-45) to a color defined by first, second and third

primary colors (CMY or RGB, col. 4, ln. 23-24), each primary color capable of exhibiting either

a first intensity or a second intensity (col. 3, ln. 34-40 and ln. 44-47), and the print data

generating unit (Fig. 1, printer 30) is configured to generate two-color print data by converting

each color in the reduced-color digital image data to the main color, the secondary color, or the

background color according to one of the following rules (col. 3, ln. 44-56 and TABLE 1): (1)

for each color whose three primary colors each exhibit its first intensity convert that pixel to the

main color (col. 3, ln. 44-56 and TABLE 1), (2) for each color whose three primary colors each

exhibit its second intensity convert that pixel to the background color (col. 3, ln. 44-56 and

TABLE 1), and (3) for each color that does not satisfy either of conditions (1) or (2) convert that

pixel to the secondary color (col. 3, ln. 44-56 and TABLE 1).

Regarding claim 26: Arguments analogous to those stated in the rejection of claim 20 are

applicable. A data storage medium containing a program of instructions is inherently taught as

evidenced by host system 10 (computing device, col. 3, ln. 7-9) and various memories stored

within.

Regarding claim 27: Payne satisfies all the elements of claim 26. Arguments analogous to those stated in the rejection of claim 21 are applicable. A data storage medium containing a program of instructions is inherently taught as evidenced by host system 10 (computing device, col. 3, ln. 7-9) and various memories stored within.

Regarding claim 28: Payne satisfies all the elements of claim 26. Arguments analogous to those stated in the rejection of claim 22 are applicable. A data storage medium containing a program of instructions is inherently taught as evidenced by host system 10 (computing device, col. 3, ln. 7-9) and various memories stored within.

Regarding claim 29: Payne satisfies all the elements of claim 26. Arguments analogous to those stated in the rejection of claim 23 are applicable. A data storage medium containing a program of instructions is inherently taught as evidenced by host system 10 (computing device, col. 3, ln. 7-9) and various memories stored within.

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yoh et al. (5,740,333).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charlotte M. Baker whose telephone number is 571-272-7459. The examiner can normally be reached on Monday-Friday 8:30-5:00.
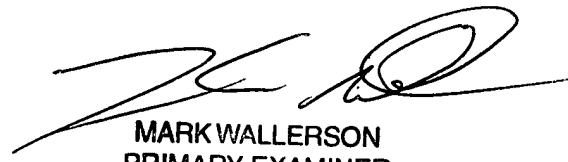
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A. Williams can be reached on 571-272-7471. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

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system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CMB

MARK WALLERSON
PRIMARY EXAMINER